

THE FORFICULIDÆ, BLATTIDÆ, MANTIDÆ AND PHASMIDÆ COLLECTED IN NORTHEAST AFRICA BY DR. A. DONALDSON SMITH.

BY JAMES A. G. REHN.

The material of which the present paper is a study was collected by Dr. A. Donaldson Smith on his two expeditions into northeast Africa, and presented by him to the Academy of Natural Sciences of Philadelphia. The first of the expeditions was made in the years 1894 and 1895, and extended as far west as Lake Rudolf, the whole account of which has been published in book form.¹ The last expedition was made in 1899 and 1900, the route being by Lake Rudolf on through the unknown to the Nile. On this last expedition but two specimens of Orthoptera were collected. The total number of specimens of Orthoptera secured is 239, perhaps the most important collection ever brought from that country. The remaining portion (*Acrilidæ*, *Locustidæ* and *Gryllidæ*) will shortly be reported upon.

Family FORFICULIDÆ.

Labidura sp.

Three immature specimens; Sheikh Husein, Gallaland, September 23 and 27, October 3, 1894.

Anisolabis mæsta (Serville).

1839. *Forficesila mæsta* Serville, Orthoptères, p. 28.

One specimen, ♂; between Guinea and Dada, near the Darde river, Gallaland, November 20, 1894.

Anisolabis sp.?

One immature female; Sheikh Husein, Gallaland, September 23, 1894.

Apterygida huseinæ n. sp.

Types, one male and two females:

♂, October, 5, 1894, Sheikh Husein, Gallaland.

♀, September 23, 1894, Sheikh Husein, Gallaland.

♀, September 21, 1894, Sheikh Husein, Gallaland.

This species apparently has no close affinity with any of the described forms.

¹ *Through Unknown African Countries*, by A. Donaldson Smith.

♂.—Size large. Antennæ composed of nineteen segments. Pronotum quadrate, the posterior angles moderately rounded, lateral margins somewhat extended, posterior section with a distinct median sulcation, tumid anteriorly with a moderate depression centrally, the posterior portion being moderately scabrous. Elytra rather elongate, the posterior margin very broadly rounded, the whole with the small exposed portion of the wing scabrous. Abdomen entirely punctate; anterior segments with the posterior margins rather indistinctly beaded, each segment laterally with two longitudinal indistinct tuberculations. Anal segment transverse, somewhat glabrous, centrally with a broad sulcus, the median portion of the posterior margin truncate. Forceps not quite half as long as the body, widely separated at the base, the shafts directed inward, the tips incurved, the internal margin bearing centrally a well-marked tooth. Subgenital plate with the posterior margin triangularly extended, the apex truncate.

♀.—Size large. Antennæ composed of twenty-four to twenty-six segments. Subgenital plate with the posterior margin rather broadly rounded. Forceps straight, tips incurved, the internal margin dentate anteriorly, crenulate posteriorly.

General color blackish brown, the lower surface of head and pronotum dull ochraceous, in one specimen this is entirely suffused with dark brownish. Limbs dull luteous washed with blackish.

Measurements.

	♂	♀
Length of body (with forceps),	21 mm.,	22 mm.
Length of forceps,	5.75 “	5 “
Length of pronotum,	2 “	2.75 “
Length of anal segment,	2.1 “	2.1 “
Length of elytra,	4 “	3.75 “
Width of elytra,	3.5 “	3.75 “

Family BLATTIDÆ.

Aphlebia algerica Bolivar.

1881. *Aphlebia algerica* Bolivar, Ann. Soc. Esp. Soc. Nat., X, p. 499.

Two females; Roka and Luku, Gallaland, September 11 and 17, 1894.

Theganopteryx senegalensis Saussure.

1868. *Blatta senegalensis* Saussure, Revue et Magasin de Zoologie (2), XX, p. 354.

One female; Sheikh Husein, Gallaland, October 3, 1894.

Blatta germanica Linnaeus.

1767. *Blatta germanica* Linnaeus, Syst. Nat., XII ed., II, p. 688.

One male; Sheikh Husein, Gallaland, October 6, 1894.

Ischnoptera picea Schulthess.

1893. *Ischnoptera picea* Schulthess-Schindler, Ann. Mus. Civ. Genova, XXXIX, p. 166.

One male; Daro Mountains, between Ginea and Dada, Gallaland, November 19, 1894.

Periplaneta atricollis Saussure.

1899. *Periplaneta atricollis* Saussure, Abhandl. d. Senckenb. Naturforsch. Gesellsch., XXI, p. 580.

Four specimens; Sheikh Husein, Gallaland, September 21 and 25 and October 10, 1894.

Deropeltis autraniana Saussure.

1895. *Deropeltis autraniana* Saussure, Ann. Mus. Civ. Genova, XXXV, p. 78.

Two females; Jara, southern Gallaland, October 23, 1899.

These two specimens were the only Orthoptera collected by Dr. Smith on his last expedition.

Deropeltis schweinfurthi Saussure.

1895. *Deropeltis schweinfurthi* Saussure, Ann. Mus. Civ. Genova, XXXV, p. 79.

One female; Daro Mountains, Gallaland, November 18, 1894.

Deropeltis wahlbergi (Stål).

1856. *Periplaneta wahlbergi* Stål, Ofv. Vet.-Akad. Forhand., p. 167.

Two males; between Luku and Dago Tula, Gallaland, September 18, 1894.

Heterogamia africana (Linnaeus).

1764. *Blatta africana* Linnaeus, Mus. Lud. Ulric., p. 108.

One female; Gagap, near Milmil, Somaliland, July 30, 1894.

Heterogamia sp.

One female; no data.

This specimen resembles *S. dohrniana* Saussure from North China to a very great extent. In the absence of material and in the face of the widely different localities, it seems best not to attempt to make any definite statement regarding its possible identity.

Oxyhaloa ferretti (Reiche and Fairmaire).

1847. *Blatta ferretti* Reiche and Fairmaire, Ferret and Galinier's Voy. en Abyssinie, III, p. 420, Pl. 27, figs. 1, 2.

Two males; one Sheikh Husein, Gallaland, October 1, 1894, the other without data.

Nauphœta gestriana Saussure.

1895. *Nauphata gestriana* Saussure, Ann. Mus. Civ. Genova, XXXV, p. 86.

Three specimens; Sheikh Husein, Gallaland, October 1 and 6, 1894.

Stenopilema capucina (Gerstaecker).

1873. *Derocalymma capucina* Gerstaecker, in Van der Decken's Reise, III, Abth. II, p. 8.

One male and one female; the former without data; the latter Sheikh Husein, Gallaland, October 1, 1894.

Stenopilema somali Saussure and Zehntner.

1895. *Stenopilema somali* Saussure and Zehntner, Revue Suisse Zoolog., III, p. 27.

One female; no data.

Derocalymma erythrenia Saussure and Zehntner.

1895. *Derocalymma erythrenia* Saussure and Zehntner, Revue Suisse Zoolog., III, p. 31.

Three females; two Hargesa and Bodele, Somaliland, July 21 and August 15, 1894; the other with no data.

These specimens range from 12.5 to 20 mm. in total length.

Calolampra aptera Schulthess.

1898. *Calolampra aptera* Schulthess-Schindler, Ann. Mus. Civ. Genova, XXXIX, p. 169.

Three females; Daro river near Laga, Somaliland, November 28, 1894.

Phenacisma peltata Karsch?

1896. *Phenacisma peltata* Karsch, Entomol. Zeitung, LVII, p. 243.

One female (immature); Tug Terfa, Somaliland, August 21, 1894.

This specimen is referred here with some doubt.

Family MANTIDÆ.

Eremiaphila somalica n. sp.

1899. *E. spec. vic. arabica* Schulthess-Schindler, Ann. Mus. Civ. Genova, XXXIX, p. 170.

Types, two females; one The Haud, July 13, 1894, and the other without locality or date (there can be little doubt but that it was taken in the same general region).

Apparently approaching *E. arabica* Saussure, but differing in numerous details; with *E. aristides* Lucas, from Suez, the relationship is also close, but that species is described as wingless.

The specimens (or at least one of them) were collected in the same character of country frequented by the other species of the genus—barren and waterless plains or absolute deserts.

Size medium. Head, with eyes, wider than deep (excluding the clypeus), anterior border viewed superiorly truncate; antennæ slender. Pronotum sparsely tuberculate, broader anteriorly than long, posteriorly converging; anterior border with a broad, low central convexity which is perceptibly impressed in the median section, the margin free; angles rect-acute angulate; posterior border apparently truncate.² Tegmina as in *E. arabica*, except that the main veins ramify and become lost in the reticulations of the posterior portion of the tegmina. Wings well developed, extending to the tips of the tegmina. Abdomen with the supra-anal plate transverse, subsinuate centrally; subgenital plate rather elongate, the apex broadly rounded. Limbs sparsely tuberculate, the tubercles sometimes arranged in regular series. Anterior tibiæ with four rather blunt spines on the external margin. Median and posterior femora each with a row of blunt teeth along the posterior margin, the distal extremities bearing a moderate-sized spine. Posterior tibiæ slightly longer than the femora.

General color ranging from purplish brown on the head and pronotum to clay yellow on the abdomen. Eyes, labrum and lower part of clypeus ferruginous. Exposed surface of tegmina pale clay yellow becoming dull reddish centrally; lower surface with a bar of blackish purple. Limbs and lateral borders of pronotum pale yellowish pink, in one specimen (The Haud, July 13, 1894) the tibiæ are obscurely ringed with whitish, in the other (unknown locality and date) the femora are decidedly clay yellow at the bases.

	<i>Measurements.</i>	
	♂ (The Haud. 7-13, '94.)	♀ (?)
Total length,	16.5 mm.	18 mm.
Length of pronotum	3 "	3 "
Anterior width of pronotum,	5 "	4.75 "
Length of tegmina,	7 "	7.50 "
Width of abdomen,	7 "	6.75 "
Length of hind femora,	9.25 "	9.50 "

² This portion was somewhat damaged in both specimens by the insertion of the pin.

It is interesting to know that *E. arabica* has been recorded from Webithal, Ogaden, by Schulthess³; later the same author⁴ considers specimens from Obbia somewhat removed from true *arabica*.

Tarachodes smithi n. sp.

Types, male and female, the latter immature; Tug Terfa and Tug Berka, northern Somaliland, August 21 and 23, 1894.

This rather peculiar species is evidently allied to *T. media* Schulthess-Schindler⁵ and *T. astuans* Saussure⁶, systematically and geographically fitting between the two. From *media* it differs in the form of the head, which is anteriorly truncate instead of irregularly arcuate, and the prosternum which is unifasciate instead of trifasciate; from *astuans* it differs also in the form of the head, and in the form and size of the joints of the cerci.

♂.—Size rather large, moderately robust. Head with vertex transverse, subtruncate. Pronotum about twice as long as the greatest width, considerably narrower posteriorly than anteriorly; the anterior and posterior margins broadly rounded, the lateral margins sinuate, the whole spineless; dorsum bearing four obsolete tubercles centrally. Tegmina long, surpassing the abdomen, about four times as long as broad. Anterior limbs with the femora rather stout and heavy, the external margin bearing five large and twelve small teeth, the internal margin bearing twelve teeth alternating in size. Median and posterior limbs lightly built, hirsute. Abdomen rather slender. Cerci damaged.

General color grayish brown suffused, except the tegmina, with dull purplish brown. Clypeus, labrum and facial shield ochraceous with four transverse blackish bars, the superior pair continued upon the olive-tinged eyes. Pronotum with the suffusing tint arranged in a pair of broken parallel lines along the median section, posteriorly tinged with green, the lateral margins being thickly speckled. Limbs irregularly marked with the suffusing tint, except the anterior coxæ and the lower surface of the tibiæ which are pale yellowish, the internal section of the tibiæ being broadly lined with black. Below dull yellowish except a single band of black across the prosternum. Tegmina hyaline, the longitudinal veins blackish irregularly broken by whitish spaces.

³ *Zool. Jahrb., Syst.*, VIII, p. 69.

⁴ *Ann. Mus. Civ. Genova*, XXXIX, p. 170.

⁵ *Ann. Mus. Civ. Genova*, XXXIX, p. 171.

⁶ *Ibid.*, XXXV, p. 91.

♀.—Size medium, robust. Head with vertex transverse, truncate. Pronotum less than twice as long as the greatest width; the anterior margin rather broadly rounded, the posterior truncate with the angles cut off, the lateral margins sinuate, spined throughout their length, one large spine anteriorly; the dorsum with two obsolete tubercles near the anterior margin, and six paired tubercles placed equidistant from the sulcus to within about three millimeters of the posterior margin. Tegmina and wings short and undeveloped. Anterior limbs with the tibiae very deep and robust, the external margin bearing five large and ten small spines, the internal bearing ten spines. Median and posterior limbs rather heavy, hirsute; the femora rather angular. Abdomen with a median ridge and each segment with four crescentic crenulations; the median ridge on the four anterior segments lobulate posteriorly. Cerei rather long, the terminal segment almost as long as the preceding two.

General color above wood brown irregularly suffused with darker brown, strongest on the abdomen, weakest on the anterior limbs. Eyes intense brownish black. Clypeus, labrum and facial shield barred as in the male, but not so distinctly. Below pale yellowish, clouded with blackish on the abdomen, the prosternum with one broad transverse blackish band.

Measurements.

		♂		♀
Total length,	40	mm.,		
Length of body,	36.5	"	29	mm.
Length of tegmina,	29	"		
Length of pronotum,	9.25	"	7.8	"
Greatest width of pronotum,	4.40	"	4.25	"
Length of anterior tibiae,	8	"	6.6	"

Tarachodes schulthessi n. n.

1895. *Chiropterus modesta* Schulthess-Rechberg, Zool. Jahrb., Syst., VIII, p. 69.

1898. *T[arachodes] modesta* Schulthess-Schindler, Ann. Mus. Civ. Genova, XXXIX, p. 173 (not of Gerstaecker, 1869).

Two males; Sheikh Husein, Gallaland, September 24 and October 1, 1894.

The name *Tarachodes modesta* was first used by Gerstaecker⁷ for a species of the genus from Zanzibar; later Schulthess, in

⁷ *Archiv. f. Naturgesch.*, XXXV, p. 208.

describing a species of *Chiropacha*, applied the name *modesta* to it,⁸ and later he used it under *Tarachodes*⁹. The maintenance of two identical names in the same genus not being permitted, I have dedicated this species to its original describer.

Tarachodes sp.

One immature specimen; Gagap, near Milmil, northern Somaliland, July 30, 1894.

This specimen is too immature to make any definite statement regarding its specific affinities.

Elæa somalica Schulthess.

1898. *Elæa somalica* Schulthess-Schindler, Ann. Mus. Civ. Genova, XXXIX, p. 170.

Three specimens, two males, one female; Selou and Lafarok, Somaliland, August 6 and 13, 1894; Fertz, Gallaland, September 12, 1894.

Compsotespis falcifera n. sp.

Type, one specimen, near the Darde river, Raia Wacheli, eastern Gallaland, September 1, 1894.

This species differs from *C. anomala* Saussure in the much greater size, in the non-mamillate eyes, the smaller and weaker forelimbs, and various other details.

Form slender. Head elongate with a broad, low median ridge, vertex not at all prominent, ocelli small; eyes subelliptical; antennæ filiform. Pronotum rather elongate, slightly broader posteriorly than anteriorly, the length being more than six times the greatest width; lateral margins almost straight, slightly constricted anterior to the insertion of the coxæ, finely tuberculate; anterior and posterior margins arcuate, the latter flattened centrally with an obscure emargination; the whole surface finely tuberculate. Tegmina abbreviate, semi-hyaline, rather coriaceous at the base. Abdomen depressed, narrow, the lateral margins almost straight, the basal and median segments one and a half times as long as wide, terminal segments short, the posterior margins with a median rounded lobe. Supraanal plate triangular, moderately produced, the apex truncate, subemarginate and obscurely carinate centrally, the latter flanked by two longitudinal depressions, each of which is laterally bordered by another carinæ. Cerci broad, compressed,

⁸ *Zool. Jahrb.*, Syst. VIII, p. 69.

⁹ *Ann. Mus. Civ. Genova*, XXXIX, p. 173.

composed of six segments increasing in length, the terminal one almost half again as long as its predecessor, the whole bearing an obsolete median ridge. Subgenital plate compressed, deeply folded, the central inclosure very narrow; styles moderately long, subspatulate. Anterior limbs very slight and weak; the coxæ and femora being about the same length and bulk, the outer margin of the latter bearing four very minute spines, discoidal spines numbering three; tibiæ not half as long as the femora, the margin not dentate; metatarsi about as long as the tibiæ. Median and posterior pairs of limbs very long and slender; the median femora each bearing two genicular spines; tibiæ longer than the femora.

General color pinkish brown, the limbs touched with dull brownish; eyes testaceous; lower surface of the pronotum suffused with dull reddish; elytra decidedly pinkish at base; anterior femora with a line of reddish black on the lower margin.

Measurements.

Total length,	41	mm.
Length of pronotum,	13.25	mm.
Greatest width of pronotum,	2	mm.
Greatest width of abdomen,	3	mm.
Length of tegmina,	15.5	mm.
Length of anterior femora,	5.75	mm.
Length of posterior femora,	12.2	mm.
Length of posterior tibiæ,	14	mm.

Ligaria producta n. sp.

Type, one immature female; Sheikh Husein, Gallaland, September 30, 1894.

Closely allied to *T. trigonalis* Saussure¹⁰ from South Africa, but differing in the shape of the pronotum. The pronotum of *trigonalis* is described as having "parte antice lata ac late rotundata, . . . marginibus haud dentatus;" while in the specimen before me the pronotum is somewhat produced anteriorly, the margin being very narrowly rounded.

Size medium. Head from the facial aspect about equally long and broad; occiput subtruncate; eyes subfusiform, little attenuate superiorly. Pronotum about two-thirds as broad as long, centrally with moderate dilations, the borders crenula-dentate; anterior section diminishing in width, the margin narrowly rounded;

¹⁰ *Abhand. Senckenb. Nat. Gesellsch.*, XXI, p. 596.

posterior section slightly constricted, the margin truncate. Anterior femora stout and heavy, the inner margin spined very much as in *L. trigonalis*, the apical spines being alternately large and small, except the two terminal spines which are large with a diastema between them; tibiæ armed with seven spines; tarsus with the first joint (metatarsus) about equaling the other four. Median and posterior limbs slender, the apical spines equally visible on each; the first tarsal joint (metatarsus) of the median pair slightly shorter than the other segments. Abdomen depressed, with a central carinal fold, which is more elevated posteriorly than anteriorly on each segment, the four anterior segments having the posterior margin centrally emarginate, while the others have the same truncate. Subgenital plate somewhat produced, broadly rounded, with minute styles.

General color dull wood brown, irregularly sprinkled with blackish spots. The occiput bears a transverse line of grayish, which is visibly continued to a greater or less extent upon the eyes. The upper surface of the abdomen is tinged with yellowish, while the limbs are obscured with blackish brown.

Measurements.

Length of body,	15.5 mm.
Width across eyes,	3 mm.
Length of pronotum,	3.25 mm.
Width of pronotum,	2.25 mm.
Length of anterior femora,	4.00 mm.

Sphodropoda rudolfæ n. sp.

Type, one female; near southern end of Lake Rudolf, western Gallaland, September 1, 1895.

Allied to *S. trimacula* Saussure, but differing in the shape of the anterior portion of the pronotum and the general thickness of the shaft, besides the much shorter tegmina.

Size smaller than *S. trimacula*, but very stoutly built. Head rather long, the facial aspect broader than deep; occiput slightly arcuate; facial shield as wide as deep, superiorly obtuse angulate, the extreme tip truncate, centrally with a pair of very obscure carinæ; eyes rather large, globose, the lower margin somewhat produced. Pronotum over twice as long as the greatest width which is anterior to the middle; the shaft bearing a prominent median carinæ,

and somewhat constricted posterior to the dilation, the width here being but half that of the latter; the collar rather acuminate, the anterior angle rather narrowly rounded, the posterior margin truncate, the dilation having dentate margins. Tegmina moderately long, not quite reaching the tip of the supraanal plate; the marginal field coriaceous, the stigma large and opaque, the discoidal and anal fields semi-hyaline, the costal margin pectinate. Anterior coxæ bearing on the proximal extremity a blunt tooth-like projection, the inferior margin bearing five large spines, a small one occupying each diastema; femora rather heavy, the external margin with four spines, fifteen on the internal with some of the apical ones reduced in size and presenting a formula which would give for the anterior spines, reading posteriorly, IIII; tibiæ almost half as long as the femora, bearing ten spines on the external and fifteen on the internal margins. Median and posterior limbs moderately slender; the tibiæ much lighter and more slender than the femora; the first tarsal joint (metatarsus) very much elongate and equaling the succeeding segments. Supraanal plate very broad and shallow, the margin broadly rounded. Subgenital plate very large, the posterior portion deeply folded and supplied with short, thick, fleshy styles.

General color dull ochre yellow tinged with dragon's blood red¹¹ on the posterior border of each abdominal segment and on the limbs, the median and posterior tibiæ being little suffused. Head obscurely suffused with olivaceous, this tint being especially noticeable on the eyes, clypeus and mandibles. Tegmina dilute dragon's blood red, palest at the anal border, richest around the stigma, which is cream colored.

Measurements.

Length of body,	50.5 mm.
Width of head,	9.5 mm.
Length of pronotum,	17.25 mm.
Greatest width of pronotum,	7 mm.
Least width of pronotum,	3.75 mm.
Length of tegmina,	26.5 mm.
Greatest width of tegmina,	10 mm.
Length of anterior femora,	16.5 mm.

¹¹ Ridgway's *Nomenclature of Colors*.

Sphodromantis bioculata Burmeister.

1838. *Sphodromantis bioculata* Burmeister, Handb. d. Ent., Bd II, Abth. II, Pt. I, p. 537.

One female (immature); Sheikh Husein, Gallaland, October 8, 1894.

Mantis sacra Thunberg.

1815. *Mantis sacra* Thunberg, Mém. Acad. St. Petersb., V, p., 239.

One male; Sheikh Husein, Gallaland, September 30, 1894.

Hoplocorypha bottegi Saussure.

1895. *Hoplocorypha bottegi* Saussure, Ann. Mus. Civ. Genova, XXXV, p. 91.

One immature specimen; Aimola, Gallaland, March 16, 1895.

Hoplocorypha rapax Bormans.

1831. *Hoplocorypha rapax* Bormans, Ann. Mus. Civ. Genova, XVI, p. 211.

One immature specimen; near the Daro Mountains, between Ginea and Tulu, Gallaland, November 18, 1894.

This specimen is referred here with some little doubt; the character "tibiis tarsisque posticis nigro multipilosus" not being at all appreciable.

Miomantis fenestrata Fabricius.

1781. *Mantis fenestrata* Fabricius, Spect. Ins., I, p. 349.

One female (immature) and one male; Luku, Gallaland, September 17 and 18, 1894.

Miomantis sp.

One female (immature); Sheikh Husein, Gallaland, October 1, 1894.

Fischeria sp.

One male; Sheikh Mahomet, Gallaland, October 30, 1894.

This large specimen is unfortunately headless.

Ischnomantis media n. sp.

Type, female (somewhat immature); near the upper Webi Shebeli, Gallaland, December 24, 1894.

Closely allied to *I. spinigera* Schulthess,¹² but differing in the length of the supraanal plate which in the new form is less than the length of the anterior coxæ, while in *spinigera* it equals the anterior femora.

¹² Ann. Mus. Civ. Genova, XXXIX, p. 173.

Size large. Head viewed facially much broader than deep, the occiput arcuate; eyes prominent; clypeus bearing a transverse ridge. Pronotum four times as long as its greatest width; the lateral margins dentate anterior to the dilation, denticulate posterior to the same; anterior margin somewhat produced, rounded; posterior margin truncate, the angles obliquely trimmed; median carina visible on the shaft, replaced by a sulcus on the collar. Anterior coxæ with the lower margin dentate, the other margins denticulate; femora rather elongate, five spines on the external margin, fifteen spines anteriorly and eleven to twelve denticles posteriorly on the internal, the superior margin with a very slight concavity; tibiæ with nine spines on the external margin with a basal diastema, fourteen on the internal. Median and posterior pair of limbs very slender and light; tibiæ with the internal margins spined; metatarsus of the posterior limbs very much longer than the other tarsal joints, and closely spined below. Abdomen with lateral elongate crescentic convolutions. Supraanal plate elongate, lanceolate, the apex narrowly rounded, centrally keeled, the whole shorter than the anterior coxæ.

General color wood brown,¹³ sprinkled and finely mottled with umber, the ground tint being purest on the anterior limbs. Eyes walnut brown, mottled with blackish. Anal region and lower surface of abdomen tinged with ochraceous.

Comparative Measurements.

	♀ <i>media</i> .	♀ <i>spinigera</i> (from Schulthess).
Length of body,	107.5 mm.	113 mm.
Length of pronotum,	30.5 "	30 "
Greatest width of pronotum,	7 "	6.3 "
Length of supraanal plate,	12.5 "	20 "
Length of anterior coxæ,	19.5 "	
Length of anterior femora,	24 "	
Length of posterior femora,	35.75 "	

Parasphendale minor Schulthess.

1898. *Parasphendale minor* Schulthess-Schindler, Ann. Mus. Civ. Genova, XXXIX, p. 177.

Two females, one immature; Sheikh Husein and Tulu, Gallaland, September 29 and November 22, 1894.

¹³ Ridgway's *Nomenclature*.

Oxyophthalma gracila Saussure.

1861. *Oxyophthalmus gracilis* Saussure, Ann. Soc. Ent. France (4), I, p. 470.

One male; Bodele, Tug Terfa, Somaliland, August 20, 1894.

As far as it is possible to judge from Saussure's description and figure, this specimen is identical with his *gracilis*, except that in the specimen before me the eyes are not so mammillate as in his figure.

Oxypila annulata Serville.

1831. *Oxypila annulata* Serville, Rev. Orthopt., p. 23.

Four specimens, one male, three females (one immature); Sheikh Husein (3) and Dabuli (1), Gallaland, September 16 and October 6, 1894.

Pseudocreobotra amaræ n. sp.

Type, female; headwaters of the Burga river, near Dagugi, country of the Amara, western Gallaland, April 24, 1895.

This species is related to *P. wahlbergii* Stål from Zanzibar, but it is larger and differs in the form and comparative size of the pronotum.

Size rather large. Head transverse; the vertex prolonged into a shallowly bifid peduncle; ocelli very large and prominent; clypeus and labrum carinate, the former triangularly produced into falcate extensions; eyes very prominent, bluntly acuminate, each flanked on the posterior margin by a blunt tubercle. Pronotum with two lateral and one posterior prominent rounded lobes, the anterior margin being broadly rounded; the central section heavily bossed forming four tubercles, the large anterior one being considerably cristate; the lateral lobes thin, coriaceous and ascending. Tegmina long and moderately broad, central and basal sections opaque, apical section hyaline. Anterior coxæ finely scabrous, the lower margin with both large and small spines to the number of 6 or 7; femora bearing four spines on the external margin, each spine being thick and heavy at the base, the tip being constricted and sub-ungiculate, the internal margin with nine spines, the second, third and fifth being reduced in size; metatarsi superiorly lamellate, the external margin subpectinate, the internal margin with fourteen spines increasing in size from the proximal extremity. Median and posterior limbs rather slender, the femora with apical rotundate dilations on the posterior margin. Abdomen broad and heavy, each segment with a lateral angular production. Sub-

genital plate broadly rounded, with a central depression and a posterior median emargination.

General color between gamboge yellow and lemon yellow,¹⁴ strongest on the head, pronotum, limbs and tegminal rings. Head with the superior aspect clouded with greenish; eyes walnut brown clouded with blackish, palest inferiorly. Pronotum with the posterior half deeply suffused with dull greenish. Tegmina basally pale pea-green with a blotch of chromium green,¹⁵ the characteristic rings surrounded by the latter tint, the rings arranged as follows: a central black spot, a moderately broad ring of chromium green followed by a bar of slightly greater width of modified lemon yellow, and externally a narrow black ring. Limbs all ringed with narrow bands of dull emerald green; the lower surface of each of the anterior femora with two spots of orange.

Measurements.

Total length,	33.	mm.
Width of head,	6	“
Length of pronotum,	6.75	“
Greatest width of pronotum,	9	“
Length of elytra,	32.5	“
Greatest width of elytra,	7.5	“
Length of anterior femora,	10.5	“
Length of posterior femora,	8.25	“

Pseudoharpax virescens (Serville).

1839. *Crecobroter virescens* Serville, Orthoptères, p. 162, Pl. 3, fig. 7.

Four specimens, one male, three immature females; Sheikh Husein, Gallaland, September 28 and 30, October 9 and 10, 1894.

The male has a broad dorsal median stripe of black on the pronotum.

Popa undata (Fabricius).

1793. *Mantis undata* Fabricius, Ent. Syst., II, p. 19.

Three specimens, two males (one immature, one larval), one female; Sheikh Husein, Gallaland, and near Tug Lomo, between Milmil and Bodele, Somaliland,¹⁶ August 12, September 30 and October 10, 1894.

The males have the supraanal plate apically truncate, while that portion of the female is much more acuminate.

^{14, 15} Ridgway's *Nomenclature*.

¹⁶ The data with this specimen reads "Smith River, VIII 12, 94." Smith River cannot be found on any of Dr. Smith's charts, and the locality above s that of the date.

Empusa egena Charpentier.1841. *Empusa egena* Charpentier, Germar's Zeitschr., III, p. 297.

One larval female; Laga, Gallaland, November 29, 1894.

Idolomorpha dentifrons Saussure.1895. *Idolomorpha dentifrons* Saussure, Grandidier's Hist. de Madagascar, Orthoptères, Pt. I, p. 244.

One female; Daro Mountains, between Ginea and Tulu, Gallaland, November 19, 1894.

Blepharis cornuta Schulthess.1895. *Blepharis cornuta* Schulthess-Rechberg, Zoolog. Jahrb., Syst. Abth., VIII, p. 72.

Two immature females; vicinity of Laga, Gallaland, November 28 and 30, 1894.

The two specimens before me differ somewhat from the figure of *cornuta*, the anterior tibiae being longer than those figured, though this may be due to foreshortening in the figure. On the whole the variations amount to so little that there is no doubt as to their identity.

Family PHASMIDÆ.

Palophus reyi (Grandidier).1869. *Ischnopoda reyi* Grandidier, Revue et Magasin de Zool. (2), XXI, p. 292.

One female; no data.

Total length,	202 mm.
Length of tegmina,	25 "
Length of wings,	67 "
Length of anterior femora,	56 "
Length of median femora,	42 "
Length of posterior femora,	54 "

Clonaria gracila (Burmeister).1838. *Bacillus gracila* Burmeister, Handb. d. Ent., II, Abth. II, Pt. I, p. 561.

One male; Berbera, Somaliland, July 3, 1894.

The collection also includes four female specimens of *Phasmidæ* taken at the following localities:

Sheikh Husein, Gallaland, October 8, 1894.

Sheikh Mahomet, Gallaland, October 30, 1894.

Luku, Gallaland, September 17, 1894.

Between Tug Lomo and Bodele, Somaliland, August 12, 1894.

These are damaged to such an extent that determination is very difficult or impossible, many of the portions used in classification being absent or badly damaged.